Sai Nirmal Vignu Varigonda

MACHINE LEARNING ENGINEER

Profile

As a Machine Learning Engineer with 2.3 years of experience, seeking a dynamic and innovative organization. Committed to staying updated with the latest tech advancements, enhancing user experience, and optimizing digital solutions. Expertise in Machine Learning, programming, and software development for valuable team contributions. Dedicated to continuous learning and growth in the field.

Employment History

ML Engineering Analyst, Accenture, Hyderabad

JULY 2024 — PRESENT

Project: Insulator Classification for towers in Transmission Grid

- Implemented insulator classification of each insulator of a tower in transmission grid for transmission system operator.
- Used GroundingDINO multimodal for detecting insulators in towers for labelling purpose using refined prompts
- Preprocessed the labelled data for training the model.
- Trained Yolo object Detection Model to detect and crop out insulators from tower images.
- Utilized K-Means clustering to segment the image into distinct regions, subsequently employing these segmented regions as input features for a classification task without training a separate classification model.

Digital Specialist Engineer, Infosys, Hyderabad

JUNE 2022 — JUNE 2024

Project: Stock Detection and Zone Monitoring for Logistics Client

- Spearheaded the implementation of Stock detection and localization techniques in a logistics client project, providing real-time updates on clearance and area maintenance.
- Performed pre-processing on the fish eye images and normal view images based on the zone area covered in the camera feed .
- Demonstrated expertise in data preparation , meticulous labeling using tools such as LabelImg, Dataloop, and AWS Sagemaker Ground Truth.
- Performed fine tuning on pretrained YOLOX model for training and deployed model as sagemaker endpoint to used it as API to predict and give the result in desired output format during live feed.
- Developed a custom post process logic using distance based models like KNN to eliminate duplicate object detections.
- Performed Ground Truth testing on the images in various scenarios to evaluate model performance.
- Maintained E2E flow from deployment of model as endpoint to using it in our AI Engine in AWS lambda
- Developed Code Pipelines in AWS to transfer components from Development to Production Environment
- Deployed Power Bi Report in Client Server for live updating the Count of objects in the each zone by plotting in a report
- Handeled PII data by blurring the faces of workers in the working zones

Project: Planogram Compliance Control via Object Detection, Sequence Alignment

- Developed a YOLOv8 model-based solution tailored to retail customers, training it on custom-labeled data to meet specific requirements.
- Ensured accurate planogram arrangement by implementing post-processing techniques to guarantee correct product order and placement.

Details

3-271/2 opposite whynot
shopping mall road
Palangi, 534216
India
8106701825
varigondanirmal1@gmail.com

DATE OF BIRTH

21/03/2001

Links

Github

Linkedin

Portifolio

Kaggle

Skills

Python

Machine Learning

Deep Learning

Computer Vision

Generative AI

OpenCV

Git

SQL

Flask

Tensorflow

Pytorch

Dataloop

AWS

Langchain

Languages

Telugu

English

Hindi

Hobbies

Travelling, Cooking , Gaming

Education

B.Tech, SRKR Engineering College

JUNE 2018 — DECEMBER 2022

Graduated in Information Technology

CGPA: 8.26

MPC, Sasi Junior College

JUNE 2016 — APRIL 2018

Percentage 97.1%

High School, Roots School

APRIL 2016

CGPA 9.5

Certifications

Deep Learning Specialization, Coursera

Natural Language Processing Specialization, Coursera

Generative AI with Large Language Models, Coursera

Certified Advanced Computer vision Professional, Infosys

Certified Machine Learning Professional, Infosys

Azure Fundamentals (AZ-900), Microsoft

Azure AI Fundamentals (AI-900), Microsoft

Azure Data Fundamentals (DP-900), Microsoft

Azure Data Scientist Associate (DP-100), Microsoft

AWS Certified Cloud Practitioner, AWS

Programming, Data Structures and Algorithms Using Python, NPTEL

Projects

- Developed a Machine Learning model that predicts insurance claim fraud using past records and performance data. This model helps identify fraudulent claims and improve efficiency in insurance processes. (link)
- Developed Q&A Application which accepts multiple data source for querying by implementing RAG Pipeline using Langchain and Opensource LLM models. (link)
- Developed multiple classification models to predict the likelihood of a liability customer purchasing personal loans. These models utilize various customer attributes and factors to make accurate predictions. Additionally, I have built a web application using Flask and deployed it using Render, allowing users to access the loan prediction service easily. (link)
- Developed a Chat with PDF tool using Langchain and Large Language models OpenAi and created a interface using Streamlit, where it accepts pdf as input and answer any question related to content in the pdf. (link)
- Collaborated with a team of two members to design and develop a website for Roost School Tanuku using Django. Successfully created rootstanuku.com, showcasing the school's information with enhanced user experience. (rootstanuku.com)